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MEDICAL UNIVERSITY OF SOUTH CAROLINA

Annual Report
1972-1973



MEDICAL UNIVERSITY OF SOUTH CAROLINA

Annual Report
1972-1973

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Gentlemen:

This has been a most meaningful year for South Carolina in terms of cooperative effort in the health field.

Of special note were the steps taken to develop a truly statewide system of health education. I can report that both the South Carolina Medical Education Consortium and Area Health Education Center Program have been successfully launched and are proceeding according to plan. Benefits to South Carolina are already in evidence. As of the first year, cooperating hospitals in Greenville, Spartanburg and Columbia reported an increase in medical residencies filled of 40 percent.

In the spirit of full cooperation, the Medical University has responded to expressed needs. It is training MEDEX (assistants to physicians) who are warmly being received by doctors throughout the state; re-training engineers as Bio-Engineers to provide technical services for smaller hospitals; adding paramedical specialties, now 14 in number; and expanding its college and hospital affiliations.

We at the Medical University are most grateful for the support we have received from sister institutions, state and federal agencies, and the great people of this state. We will work diligently to measure up to the full confidence placed in us.

Respectfully submitted,

William M. McCord, M.D., Ph.D.
President

WMMcC:nsh

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COLLEGE OF MEDICINE

The year just completed could fittingly be described as a landmark year for statewide cooperation in health education. The General Assembly provided \$500,000 to initiate operation of the South Carolina Medical Education Consortium, a combination of effort among hospitals in Greenville, Spartanburg and Columbia with the Medical University. The returns from this investment were quickly apparent as an increase in the residency input, from 80 to 112, was registered in these hospitals, an increase of 40 percent.

Seeking to build upon this excellent base, the Medical University applied for an Area Health Education Center (AHEC) project grant on August 15, 1972, and encountered quick success. A contract was awarded beginning November 1 from the Bureau of Health Manpower, HEW, for a total of \$9.8 million in incremental funding over a five-year span. The AHEC program was a natural development for the three Consortium Hospitals, with McLeod Memorial Hospital in Florence added soon after. The Consortium Program of undergraduate and residency medical education was expanded by AHEC to include Nursing, Dental, Pharmacy and Allied Health programs as well as assistance for minority groups and Community Education projects. Implementation of the program proceeded rapidly as the result of excellent working relationships developed between the cooperating hospitals and the AHEC-Medical Consortium staffs.

The General Assembly acted to provide approximately \$4 million from state revenues for the Family Practice system. The end of the fiscal year saw the Department of Family Practice headed by Dr. Hiram B. Curry assuming responsibility for the direction of the system.

The leasing of the Riverside Geriatric Home by the Medical University allowed for the establishment of a model Family Practice Center. All the space in the former home (except a few offices in use by other departments) is devoted to a modern family practice clinic with Dental and Pharmacy units, a branch of the Radiology Service and computerized records developed on the Problem-Oriented

System. Faculty added has been of high quality and the Family Practice Center is conceivably the best in the country.

In other College of Medicine developments, the Department of Pharmacology entered a new period of accomplishment under the direction of Dr. Thomas E. Gaffney who became its new chairman on August 15, 1972. Dr. Gaffney has added four associates of his Cincinnati group and generated research capability in the most modern and sophisticated techniques of organic chemistry to trace the metabolic pathways of drugs entering the human body. With the nucleus of pharmacologists retained from those recruited and trained by the late Dr. Robert Walton, an excellent Department of Pharmacology has been developed within the year covered in this report.

The adjacent community hospitals—the Roper Hospital and St. Francis Xavier Hospital—have signed affiliation agreements with the College of Medicine for their utilization as teaching hospitals.

The historic association of the Roper Hospital with the College of Medicine, for which Roper was the principal teaching unit for over a century, has been reestablished after nearly a decade of separation. Formal educational plans, possibly including the appointment of a joint Director of Medical Education for the two hospitals, are well advanced while medical students are already receiving instruction in both institutions.

The year ended with the filling of the position of Professor and Chairman of Neurology by Dr. Edward L. Hogan of the University of North Carolina School of Medicine. Dr. Hogan has vigorously begun the recruitment of faculty to bring his department to the desired level in numbers.

The winter of 1972 witnessed the first student group, 86 in number, to graduate in less than the traditional four calendar years. Early graduation was achieved by a more effective use of the summer quarter, and not through a reduction of academic requirements.

Minority Affairs activities began in 1973 with the institution of plans for a core curriculum established at South

Carolina State College involving the students identified as prospective candidates for health careers. The initial course was given in March, 1973, beginning with Rapid Reading Comprehension; a total of 26 students enrolled in this course. This first effort was rewarding. A plan for introductory courses for minority students and others considered to have had inadequate preparation for Medicine and Dentistry was completed. This program is designed to accept approximately 20 to 25 students, and is set up to begin the middle of August, 1973. It will be conducted by representatives of the departments of Physiology, Anatomy, Cell Biology and Biochemistry and funded by the Area Health Education Center (AHEC).

An increase in College of Medicine faculty has produced an enrichment of research capabilities. Research, in addition to its laudable contribution to new knowledge, plays a vital role in encouraging students to think critically and respond innovatively to health care problems. One of the significant developments, and there are others, is the Multi-disciplinary Research Program as exemplified in Pharmacology-Toxicology.

SUMMARY OF RESEARCH SUPPORT COLLEGE OF MEDICINE

	6/15/70	1/1/71	5/1/72	5/1/73*
Federal Research Grants.....	1,678,131	1,487,000	2,291,819	2,860,000
Non-Federal Research Grants	182,728	259,000	484,471	550,000
General Research Support Grant.....	<u>200,000</u>	<u>200,000</u>	<u>200,000</u>	<u>200,000</u>
TOTAL	2,060,859	1,946,000	2,976,290	3,610,000

*Estimated

Source: Research Office Reports

Attention is called to the very active affiliation with the Charleston Veterans Administration Hospital (VAH). The VAH has over 400 beds and a budget of more than \$11 million supporting over 600 employees. It provides the Medical University with the opportunity for teaching and

training students of its various colleges, including the Colleges of Medicine, Nursing, Pharmacy, and Allied Health Sciences. The various services of the VAH, including Medicine, Surgery, Psychiatry and the specialty services in Surgery, are staffed by over 40 professionals, 35 of whom have faculty appointments in the College of Medicine and 2 others in the College of Nursing. The physicians are involved in patient care and have teaching responsibilities both at the VAH and for the College of Medicine. In addition, there are over 140 consultant and attending physicians from the MUSC faculty who participate in patient care, the teaching of medical students and in the training of MUSC house staff at the VAH.

The VA Hospital provides a major teaching experience for medical students and house staff, for during the course of a year not only do over 160 residents and interns rotate through the hospital, but also the entire junior and senior classes have some part of their experience in Medicine, Surgery, and Psychiatry within the VA environs. In addition, over 60 students in the sophomore class receive part of their training in Pathology at the VA Hospital. Further, over 75 trainees, students or technicians in the allied health areas are provided with experience in the VAH, e.g., in radiology and laboratory techniques, and as pulmonary function technicians, inhalation therapists and nurse anesthetists. Also, pharmacy and pharmacology students, as well as physician's assistants and psychologists take part of their training here. Of the more than 275 nursing students trained in the VAH, the College of Nursing's share is over 100 professional nurses and 30 LPN's. Thus, the VA Hospital has a decided impact on the strength and efficacy of the teaching programs of the MUSC.

The VAH and the MUSC have developed a cohesive program not only in teaching and faculty deployment, but also in the joint use of medical resources, both facilities sharing in a wide range of diagnostic and therapeutic services. In some the VAH provides opportunities in cardiac catheterization, the implantation of cardiac pacemakers, pulmonary function studies, renal dialysis, and most recently cardiac surgery. MUSC provides endocrine metabolism facilities, a diabetic education center for

patients, and, on a fee for service basis, coverage in certain laboratory areas, radiotherapy, and radiology.

Of no little importance to the medical center is the expanding research program at the VAH now involving over 18 professionals on the faculty of MUSC, utilizing resources in over 10,000 square feet and a budget of over \$250,000. These research facilities are well-equipped, containing highly sophisticated instrumentation for clinical medicine and molecular biology.

Outpatient clinics of the VAH, in which over 50,000 patients are seen yearly, also provide unusual opportunities for house staff training.

Sharing of facilities and long range planning will continue to provide beneficial impact upon teaching, research and health care delivery.

COLLEGE OF DENTAL MEDICINE

The class of 53 students which entered the College in July, 1972, was the first to embark formally on a three-year curriculum. The class admitted the previous year had embarked on a four-year program, but when the decision to adopt a three-year curriculum was made, it was possible to reallocate their time so that they could graduate in three years and one quarter.

Early in the year, the junior class requested that consideration be given to allowing them to graduate in December 1973 (rather than in June, 1974, as scheduled on the four-year curriculum). They pointed out that by working through the summer quarters of 1972 and 1973, the class would have completed by Christmas 1973 the same amount of didactic and clinical time as if they had remained on the former four-year program with summers free. The request from the class was approved and the class is scheduled for graduation on December 16, 1973.

The senior class of 23 students was the last of the half size classes enrolled in the College and all graduated on June 7, 1973. Subsequently, all passed the South Carolina State Board Examination.

Four department chairmen were appointed during the year: Dr. Thomas Gaffney, Department of Pharmacology;

Dr. Edward White, Department of Endodontics; Dr. John Berdon, Department of Periodontology; and Dr. William B. Kinney, Department of Oral Medicine and Oral Diagnosis. In addition, Dr. Kinney was appointed Director of Patient Services.

The College submitted applications to the Council on Dental Education for the development of graduate programs in the areas of Prosthodontics, Pediatric Dentistry and Oral Pathology. These programs were approved and the College embarked on implementing the programs, to begin in July, 1973. Three students will be accepted in the first year of the Prosthodontic program, two in Pediatric Dentistry and two in Oral Pathology.

The residency program in Oral Surgery continued to thrive and received the approval of the Council on Dental Education to accept an additional student each year. This will bring the number per year to four. This residency program in Oral Surgery is now well recognized nationally and during the year 75 applications were received for the four places available. A strong feature of the program is the liaison between the Department of Oral Surgery and the Department of Surgery of the College of Medicine. Oral Surgery residents now receive an increasing amount of training in general and neurosurgery and the duration of the program has been lengthened to three years.

In August, 1972, the College participated in the University's application to the Department of Health, Education and Welfare for funds to develop Area Health Education Centers throughout South Carolina. In this program, the College envisioned that residency programs in general dentistry and the assignment of undergraduate students for clinical experiences to these Health Centers would be developed over a five-year period. The application was successful. The College appointed Dr. Alfred C. Waldrep as Coordinator for the dental aspect of the Area Health Education Centers. Since that time, Dr. Waldrep has been involved in developing a liaison with Richland Memorial Hospital and the Tech Center, Columbia, and the hospitals at Spartanburg and Greenville. On May 23, 1973, a meeting of parties interested in the dental program was held under the chairmanship of the AHEC project director, Dr. J. F. A.

McManus, Dean, College of Medicine. It was established that within the next year dental clinical facilities will be developed at Richland Memorial Hospital, Columbia, faculty will be appointed and undergraduate students assigned for clinical rotation.

The College signed agreements with Digital Corporation, Maynard, Mass., for the lease/purchase of a PDP 11/20 Computer, the computer becoming operational in June, 1973. As a beginning, National Board Examination questions in clinical and basic science subjects were put on the computer. In due course, more sophisticated Computer-Assisted Instruction Programs will be developed and the computer will undertake management problems in relation to student/patient matching, monitoring of grades and clinical achievement and the scheduling of clinical assignments and working spaces for students.

In the Spring Quarter of 1973, a program of simulated private practice for senior students was undertaken. In this program, selected students undertook a broad range of clinical work in circumstances more closely resembling private practice than those of the usual school clinic. Seven senior students who were competent to perform clinical treatment without close supervision were chosen. Each student was allocated a specific clinical working area and a dental assistant. The program was placed under the direction of Dr. Stephen O. Bartlett.

With freedom from continuous direct supervision and with the services of a dental assistant, each student was able to increase considerably the number of patients treated and the number of procedures completed. Dr. Bartlett remained on clinical call in the area and made random checks on the work in progress and examined all completed courses of treatment in detail. The work done by the students was entirely satisfactory. The results of the program were such that the College plans to expand it to the point where it will involve all students before graduation.

During the year the development of an Office of Education was initiated within the College. The Office will supply the expertise and resources to assist faculty in

curriculum development and evaluation procedures, with the aim of adopting, in due course, a more self-instructional and self-pacing educational program. The College recruited Dr. Frank Penta from the Office of Educational Resources at the University of Illinois as the director. It anticipates the recruitment of at least two more specialists in education and the appointment of other staff necessary to implement a progressive and stimulating educational program

The College of Dental Medicine State appropriated budget was \$2.2 million, allocated among six Basic Science departments, 14 clinical departments and four divisions.

The federal capitation grant was \$304,000. In addition to supporting a number of non-faculty positions, they were used for major equipment purchases, the long term lease of the PDP 11/20 Computer and for structural and equipment modifications to the Endodontic clinical area.

On June 30, 1973, Dr. John E. Buhler, Dean Emeritus, retired, having reached the statutory age. Dr. Buhler was appointed Dean in 1964 and was responsible for the recruitment of the first faculty, the development of the educational program and the admission of students to the College. Under his leadership, the Dental/Basic Science Building was completed in 1970 and the first class graduated in June, 1971. The College acknowledges its gratitude to Dr. Buhler and wishes him well in his retirement.

COLLEGE OF GRADUATE STUDIES

Enrollment in the College of Graduate Studies continued its gradual increase of the past several years. Seventy-five students were enrolled with sixty-four being classified as regular and eleven as special students.

Departmental affiliation was as follows: Anatomy, 8; Biochemistry, 18; Biometry, 11; Microbiology, 9; Pathology, 4; Pharmacology, 11; and Physiology, 3. Since the termination of the special student category, all graduate students are now enrolled in programs which lead to a degree.

The Graduate Faculty, now numbering 90, has authorized the addition of a student representative to the Graduate Council. Committees of the Faculty are attempting to formulate satisfactory programs for the combined M.D.-Ph.D or D.M.D.-Ph.D. offerings which are to be made available to exceptional students desiring these combinations.

For the first time, loans are available to graduate students through the National Direct Student Loan Program.

COLLEGE OF PHARMACY

The newly oriented curriculum was implemented in its entirety this year. In addition, a new clinical component, Family Practice Pharmacy, was created, enabling the student to work in a team manner with physicians training for their family practice specialty. Its operation is similar to that of a community pharmacy, but with the added advantage that applied research can be carried out to improve pharmacy service to the patient.

The entire faculty has participated heavily in all aspects of drug abuse education. Further, the group worked closely with the S. C. Pharmaceutical Association and the University of South Carolina School of Pharmacy in the preparation of various continuing education programs.

In January the College trained 60 law enforcement officers in conjunction with the Criminal Justice Academy, and in April a 30-hour drug program was conducted for public school nurses from Charleston, Berkeley, Dorchester, Aiken, Hampton and Williamsburg counties.

The College received a \$92,000 Capitation grant and also a Special Project Grant to recruit and retain minority students in the amount of \$40,000 (3-year total). A \$37,000 second-year grant to continue the INFORM program (statewide poison and drug information) was awarded by the S. C. Regional Medical Program.

Some \$58,000 in Health Profession Scholarship and Loan money was awarded to 63 students, while \$5,000 in general

scholarships and \$17,500 in John W. Dargavel loans were made available to an additional 28 students. In all, 91 students received some form of financial aid.

Three additional faculty positions were filled during the year and three more have been authorized for 1973-74.

All student organizations affiliated with the College had an active year. Membership in the South Carolina-American Pharmaceutical Association was 91 percent of student enrollment. The students had an active drug abuse program which they carried out in conjunction with the Charleston County School System. The "Responsible Drug Advertising" project started in 1971-72 year became a national project in 1972-73 for all student health professional associations. The First National Conference on Over the Counter Drugs was held in Charleston on September 28-30, 1972. The students are actively working with local and state organizations to advance "Team Health Care" for all citizens.

COLLEGE OF NURSING

The curriculum offerings at the College of Charleston continued to expand allowing for greater flexibility in scheduling and course section choices. General academic performance levels were reasonably distributed and no discernible differences in achievement were evident between College of Charleston and College of Nursing students. Overall students' course achievement and reaction to presentation of courses and professors were positive.

Students are availing themselves of the College Level Examination Program (CLEP) initiated by College of Charleston in April, 1972. This testing service makes validation of general education courses by standardized examination possible. It has facilitated acceleration for a limited number of registered nurse students.

There was very little turnover of College of Nursing faculty this year resulting in the most stable faculty situation since the baccalaureate program began in 1966.

This stability is most meaningful to the progress of the College.

The Faculty Executive Committee (major teachers) assumed a larger role in the decision-making process to the benefit of the College and the faculty. Students were included as members of most College of Nursing committees.

Performance in the registered nurse program was generally good. Fifteen registered nurse students were on the Dean's List at the end of the fall semester. The retention rate has also been good.

Consideration of more summer session courses at the College of Nursing has been recommended. Nursing 324: Nursing Practicum is being offered both first and second summer sessions. Nursing 320 (Nursing of Children) and Nursing 321 (Maternal/Newborn Nursing) are also being offered during first summer session. There has also been an increase in students taking courses at other campuses during the summer.

A director of the Nurse-Midwifery Program has been appointed. This nurse will be responsible for establishing the midwifery service in the teaching hospital and clinics during the coming year. A training program for registered nurses is scheduled to begin in September, 1974.

Space availability continues to be a matter of high concern. The need for additional lecture and seminar discussion type space for upper-division nursing courses necessitated renovation of Classroom 105 into two separate classrooms helping alleviate some of the problems for the upper-division level; however, because of increased enrollment in lower-division nursing courses, classroom facilities are needed which can accommodate at least 80 students at one time. Increased enrollment will create an even greater need for space of this type.

The Student Nurses Association held monthly meetings featuring excellent speakers on topics of a timely nature. SNA members also participated in such projects as "Send a Mouse to College" for the American Cancer Society and the Diabetic Fair.

On a state level, Sigma Nu Alpha was represented by several officers from The College of Nursing, as was the

Student Nurses' Association of South Carolina. Five students attended the National Student Nurses' Association convention in Minneapolis in May, 1973.

The second Career Opportunities Day was held on March 19, 1973, at the Alumni Memorial House. Representatives from 19 organizations from throughout the Southeast met with students of the College of Nursing to discuss career opportunities.

As a member of the South Carolina Division of the Carolinas Association of Collegiate Registrars and Admissions Officers, the assistant to the dean for recruitment traveled approximately 4,326 miles, covering 14 counties of the state and spoke to over 900 students and parents in this state. An attractive flier was distributed to underclassmen, and the College of Nursing picture brochure and catalog were given to juniors and seniors interested in nursing. Literature and catalogs were left with guidance counselors of every high school represented at these programs.

Nursing fliers and brochures were delivered to five of the seven Welcome Centers in the state. Two centers have already asked and received additional material. Visits were also made to six S. C. hospitals, contact being established with the Director of Nursing and the Director of Volunteer Services in each; and talks were held with students at five Charleston County High School Career Day programs and with several scout and church youth groups.

The College of Nursing's display booth was exhibited and demonstrations given at both the Charleston Health Fair and the South Carolina Health and Science Fair in Greenville.

COLLEGE OF ALLIED HEALTH SCIENCES

The College of Allied Health Sciences began the period with a complete change-over in central administration. On July 1, 1972, the Deanship was assumed by Dr. Benjamin F. Lawson, formerly professor and chairman of the Department of Oral Medicine and Periodontology in the College of Dental Medicine.

A major administrative restructuring was undertaken immediately and resulted in a rather cohesive and functional operational unit. One of the major elements of this endeavor was the broad delegation of responsibilities to selected individuals of the faculty as well as the generalized inclusion and involvement of all full-time and many part-time faculty in College operations, mainly by selective committee appointments. Of special significance in this development was the centralization of all curricular activities as well as the appointment of an Assistant Dean of Curricular Affairs, Miss Julia P. Goode.

Centralization of all student admissions, promotions and associated affairs was also carried out under a committee chaired by Miss Mildred S. Cash.

The College of Allied Health Sciences is responsible currently for 14 teaching programs. They are categorized as follows:

BACCALAUREATE AND POSTGRADUATE PROGRAMS: Anesthesia for Nurses, Applied Engineering in Health, Cytotechnology, Medical Record Administration, Medical Technology and Physical Therapy.

CERTIFICATE/ASSOCIATE DEGREE PROGRAMS: Dental Assisting, Histotechnology, Medical Laboratory Technician, Radiologic Technology and Respiratory Therapy.

OTHER PROGRAMS: Histologic Technique (1 yr.), MEDEX (Physician's Assistant) and Practical Nursing.

A new two-year program training Medical Laboratory Technicians was reviewed by a site team representing the Board of Schools of Medical Technology and received full approval.

Other academic programs that received official program review and approval during the year by their respective national accreditation bodies were Anesthesia for Nurses, Medical Technology, Respiratory Therapy, Radiologic Technology and Histotechnology.

Cooperative programs of joint appointment and salary support with both the Veterans Administration Hospital and the Technical Education Center were initiated. This

enabled the expansion of certain training activities with the promise of considerable future impact.

Five of the College's training programs operate as conjoint educational endeavors with the Berkeley-Charleston-Dorchester Technical Education Center. A Joint Steering Committee composed of members from both institutions serves as the coordinative and advisory body to the Dean of the College and Director of TEC, as well as to the individual Program Directors. Several new technical level programs are being considered whereas a new program in Extracorporeal Perfusion Technology is undergoing initial steps toward activation. The Practical Nursing Program is tentatively scheduled as a conjoint effort with TEC, dependent on final approval by each educational unit. Cooperative efforts between the faculties and staff of both institutions have enabled these conjoint programs to meet maximum enrollment levels while generally improving the quality of their education procedures.

An Inter-Institutional Steering Committee coordinates joint education ventures with another local institution, the College of Charleston. Programs involved with this institution are principally those offering Baccalaureate Degrees. Elective and required courses that are not normally available on a health institute campus are provided for in this arrangement and in a most convenient manner due to the almost adjoining campuses. Four-year curricula will be initiated as a cooperative venture with the College of Charleston within the next academic year, thus supplementing the present 2 years + 2 years, 3 years + 1 year, and postgraduate arrangements with multiple affiliated colleges. The use of College of Charleston facilities and course offerings has greatly expanded the flexibility of baccalaureate and postgraduate level programs.

Among other developments of significance, a new program for Physical Therapy has been activated following recruitment of an excellent full-time faculty. Following the appointment of a director as of July, 1972, this program was structured during 1972-1973. Students have been admitted for the academic year beginning in the fall of 1973.

A cooperative program with the Department of Surgery enabled the establishment of an Applied Engineering in

Health Program during 1972-1973. Significant interest has been expressed in numerous circles as to the possibilities of this endeavor. Five engineers completed this postgraduate level program. Supportive monies from the South Carolina Regional Medical Program and retraining funds issued through the Governor's office along with the educational involvement of the College and various individuals made possible the attainment reached in the program.

The College began a program for Physician's Assistants (MEDEX) in July, 1972. The Department of Family Practice of the College of Medicine is collaborating with the College of Allied Health Services in evolving and carrying out a curriculum for this program. This one-year training program is designed after the MEDEX concept. It has accepted 42 students during the initial year. A full-time faculty of three (3) is on hand, with recruitment efforts in progress.

Participation in the Area Health Education Center program began in July, 1972. With the appointment of a permanent Coordinator, Mr. John A. Pearce, considerable progress has been made toward cooperative efforts with the various AHEC units. Several new affiliations and agreements are in the activation or planning stage.

Education efforts of multi-institution background include affiliations with the Naval Hospital, Veterans Administration Hospital, St. Francis Xavier Hospital, Roper Hospital, County Hospital as well as those hospitals located in the Area Health Education Centers.

Faculty recruitment has shown measured progress. An effort to upgrade the faculty educational background continues. During the year, 15 full-time faculty were added.

Within a period of one to two years additional programs are projected in Dental Hygiene and Occupational Therapy. In addition, a general program constructed along the educational "ladder" concept is projected in Allied Health Sciences at the baccalaureate level.

The program for Dental Hygiene previously approved by the State in 1970 is in active planning. It is hoped that a first class can be admitted for the academic year 1974.

Several technical level two-year programs are being studied in conjunction with TEC, including Dental Laboratory Technology and Ophthalmic Assistant Technician.

Total student enrollment reached 292, the highest number in the history of the College.

In the area of student affairs, a "Dean's List" was activated in order to recognize superior student performance. The College also cooperated with the Student Aid Officer in successfully applying for various student aid funds. An "Honor Society" for Allied Health students was planned and should be activated the coming academic year. National affiliation will eventually be sought.

MEDICAL UNIVERSITY OF SOUTH CAROLINA

Fall Enrollment 1972-73

	Men	Women	Total
House Staff—Interns & Residents...	226	10	236
Graduate Studies.....	52	23	75
Medicine.....	531	46	577
Dental Medicine.....	171	3	174
Pharmacy.....	104	22	126
Nursing.....	1	259	260
Allied Health Sciences.....	<u>22</u>	<u>223</u>	<u>245</u>
	1107	586	1693

Degrees Awarded 1972-73

	Men	Women	Total
Medicine.....	113	9	122
Dental Medicine.....	23	0	23
Graduate Studies:			
Ph.D.	2	0	2
M.S.	3	1	4

Pharmacy	22	4	26
Nursing	0	53	53
Allied Health:			
Cytotechnology	0	1	1
Medical Records Administration .	1	5	6
Medical Technology	<u>0</u>	<u>2</u>	<u>2</u>
	164	75	239

MEDICAL UNIVERSITY HOSPITAL

During the reporting period, 126,217 adult patient care days and 10,125 newborn care days were provided, the averaged percent of occupancy being 77.1.

The total operational cost of the Hospital for the year amounted to \$19,155,759 of which \$6,634,511 was State appropriated. Generated cash revenue increased from \$6,550,607 in 1969-1970 to an estimated \$12,200,000 in 1972-1973.

The Hospital Director's staff was increased to better meet the administrative and operational needs of the Hospital. This included the addition of Night Administrators to provide 24-hour coverage.

The Hospital Patient Admissions Office was relocated from 2-Center to 1-West, greatly improving its capabilities of service. Elective pre-admissions have been averaging 78 per cent after the opening of a sub-station in the Outpatient Clinic.

One hundred and two patient rooms received new electric beds, overbed tables, bedside cabinets, lounge chairs and side chairs while 17 nurse stations were equipped with ice machines.

Through an aggressive maintenance program, the hospital interior was repainted to improve appearances considerably; the first and second floors were retiled with vinyl; air-conditioning was improved and expanded; electrical systems were up-graded to accommodate the increasing power demands; the Faculty Dining Room was doubled in dining space; and a deep well was provided for emergency water supply.

New facilities for Pharmacy bulk storage have been completed on the first floor as well as a new Pharmacy unit dose sub-station on the fifth floor. The Pharmacy has instituted a poison control center which is manned 24 hours every day.

New management appointments were made as follows: Director of Financial Management, Director of Patient Accounting, Director of Financial Counseling, Director of Patient Admissions and Director of Mortuary Services. With the establishment of a Department of Mortuary Services, relations with Funeral Homes, families of the deceased, and our staff have greatly improved.

Elmina M. Price, Ed.D., well-known Clinical Nursing Consultant, continues in her role to evaluate and make recommendations concerning staffing and related problems. The Fifth Floor Pilot Program was organized to improve patient care patterns and procedures. These improvements are being implemented throughout the Hospital.

To further communications and professional involvement in the management of the Hospital, a Medical Director was appointed to direct the activities of the Professional Staff; the Executive Committee membership was expanded to include all the Clinical Departments; and a Joint Conference Committee was established by the Hospital Director to blend efforts among the Hospital Clinical Departments, the Hospital Service Departments, and the University Shared Services Departments.

LIBRARIES

The addition of 5,671 volumes brought the total of the Medical University collection to 86,241 volumes. Also, 2,087 current periodical titles were received.

Federal grants were funded in the amount of \$121,352 to enable the library to strengthen the holdings of the member libraries of the South Carolina Medical Education Consortium and to continue the operation of the Extension Division which provides library services to health practitioners throughout South Carolina.

The library continues to serve as a Resource Library of the Southeastern Regional Medical Library Program and a

member of the Charleston Consortium. The library received \$4,514 from SERMLP for its role in providing information to institutions and individuals in the Southeast. An additional \$6,628 was received from the College of Charleston for contracted cataloging.

The Reference Department completed 585 manual literature searches; MEDLINE Searches numbered 684; and 132 SDI (Selected Dissemination of Information or current awareness) searches were run using the computer terminal. The Extension Division received 518 requests for information and mailed 1,478 articles and 94 monographs to users throughout South Carolina. The Interlibrary Loan Division loaned more than 2,899 monographs or articles, and received 1,188 for MUSC users.

Through the generosity of South Carolina Regional Medical Program, a separate WATS line was funded for computer use.

Notification was received of a \$60,170 award from the National Library of Medicine for the first year of a three-year special project to develop a Learning Resource Center within the Library and to encourage and to facilitate the use of self-instructional materials not only at MUSC but in the Area Health Education Centers.

WARING HISTORICAL LIBRARY

Gifts and loans during the past year were generous and numerous. Of special note were a silver cup awarded to a pharmacist of Columbia, Dr. Edward Etienne Jackson, his apothecary scales and a receipt book of his drug preparations dated in 1884; a diploma of 1860; account and case books of Dr. Thomas Maddox of Maryland covering the years 1848 to 1859; a prescription record book of Dr. J. A. Mayes of Mayesville, S. C. from 1876 to 1881; a croup lamp; Stader splint; and two letters of the great American physician James Marion Sims.

Among library purchases were letters of Middleton Michel and Gaillard Thomas, graduates of the Medical College, the former also a professor; two caricatures, one by Gilray; and a case of surgical instruments. Through the use of the Wyman Fund, the Library purchased a small oil por-

trait of Isaac Chanler, a South Carolina doctor of the 18th century; a handsome brass microscope about 100 years old, and a book on natural philosophy by J. L. E. W. Shecut, printed in Charleston in 1825.

In the course of the year, the library completed the cataloging by subject of all its books and is proceeding gradually with the indexing of prints, pictures and photographs. A recent addition of approximately 200 books from the Medical Society Room at Roper Hospital will increase cataloging and book repair activities. Mrs. Agnes Heltai, who is repairing the books, added to her knowledge of fine binding by studies at the Gibbes Art Gallery.

The library exhibit case was moved from the second floor of the hospital to the vestibule in front of the entrance to the main library in a continuing effort to attract students and employees to an interest in the history of medicine.

PASTORAL COUNSELING SERVICES

Closer community relationships continued to be effected during the year. One important step was the organization of the Charleston Forum in Medicine and Theology to promote study and discussion in Medical Ethics and Clinical Pastoral Education. Primarily directed at physicians, nurses, paramedical personnel and clergymen, the program is open to all interested parties. Meetings are held on the third Tuesday of each month, October to June.

Two workshops in Medicine and Theology were held during the year. Dr. James Allen Knight of Tulane University was guest lecturer on November 9, 1972, speaking on "Medical Ethics and the New Technologies in Science". The program drew an attendance of 175 physicians, nurses and clergymen. Dr. Seward Hiltner of Princeton Theological Seminary was the speaker on May 10, 1973, his topic being "Medicine and Theology—Issues in Medical Practice and Religious Ministry to the Sick". Attendance was 163.

Brief discussions were held monthly with the new nurses as well as with nurses in In-Service Training. Attention was called to the availability of a hospital chaplain to visit patients or their relatives. Lists of hospital chaplains are circulated periodically to the nursing stations by this office.

Scheduling of the Family Consultation Room off the second floor lobby in the Medical University Hospital is done in this office. The room is available for physicians, nurses, visiting clergymen or administrators who need an appropriate room in which to consult with patients or their relatives in crises situations.

Detailed plans have been worked out with the Hospital Administrator for a hospital chapel and adequate conference space in the proposed renovation of the hospital.

CONTINUING EDUCATION

As in the past three years, the Division of Continuing Education again provided monthly speakers for the Kershaw County Medical Society, the York County Medical Society and the Beaufort Naval Hospital.

As for formal presentations, the Division gave 21 workshops, seminars and courses with 1,611 physicians, RNs, LPNs, dietitians, medical and nursing students and medical technologists in attendance. They represented a significant increase over the 13 programs and 830 people in attendance of the previous year.

There were several innovative features included in these programs. At the request of Dr. Arthur DiSalvo of the State Board of Health in Columbia, the Division assisted in a 4 day Audio-Tutorial Course in Basic Medical Mycology for medical laboratory personnel.

In cooperation with the South Carolina Society of Medical Technologists, two workshops for technicians were given, one on Hematology and one on Immunology.

At the request of Dr. William Klauber, a seminar on Nuclear Medicine was presented at Self Memorial Hospital in Greenwood.

A three day instructional workshop for Pfizer office representatives was arranged by the Division in October. Thirteen representatives from the southeast were in attendance.

The Staff Development Section of the Nursing Service of the Medical University Hospital requested the Division's assistance in arranging an in-service workshop on Human

Relations for Nursing Personnel in the Hospital Setting. Dr. Racine Brown, Director of Program Development, S. C. Department of Mental Health, presented this workshop on two consecutive days, January 8 and 9. Forty-four MUH staff nurses attended, many of them expressing the hope that other programs would be offered.

In cooperation with the Departments of Pediatrics and Pathology, the Division sponsored a Perinatal Death Conference twice a month. Average attendance was approximately 40 members of the house staff.

In addition, the following special conferences were provided:

1. The University of S. C. College of Nursing gave a continuing education course for nurses via the S. C. ETV network in 12 locations across the state during the spring of 1973. The programs were viewed on the second and fourth Mondays of each month from 4:45-5:45 p.m. and provided information on stroke nursing, assessment of patient needs, the extended role of the nurse and cancer nursing. Talk-back facilities connected all classes to the studio classroom.
2. The Greenville Post-Graduate Seminar was held on March 20-22, 1973, with 240 physicians from a three-state area in attendance.
3. The fifth Annual Biomaterials Symposium was held April 14-18, 1973, at Clemson University on "Prostheses and Tissue: The Interface Problem", with an attendance of 330 from the United States and 10 foreign countries.

All received support from SCRMP Continuing Education.

The Division also is working with Medical University Hospital Pharmacy on Project Inform, a program designed to assist physicians with information on poisons, drug abuse and related subjects. This project is currently being expanded to broaden its subject matter and provide consultative services in other fields. The Division continues to work with the Medical Library on its hookup with the National Library for dissemination of medical information.

Dr. Vince Moseley took part with Medical University officials in developing a method for offering Continuing Education Units to RNs attending workshops and seminars sponsored by the College of Nursing. These credits were offered for the first time by an institution in South Carolina for the Aging Person and His Needs program given December 11-13, 1972. Since then, three additional programs have been presented.

In October, the Division financially supported the visit of Miss Margaret Flook to the College of Nursing as a consultant for the preparation of a grant request to establish a High Risk Infant Care Nursing Program in cooperation with Dr. Abner Levkoff's Perinatal Center. Miss Flook is coordinator of such a course at the University of Colorado Medical Center, which is considered a model for this type of unit.

In recent months, the number of participating hospitals in the Health Communications Network has risen to 16, and five additional applications are pending. Participating hospitals have been supplied with video cassette playing equipment. The availability of 3/4 inch video cassettes vastly expanded the scope and flexibility of network utilization. A Network Advisory Committee has been organized and is actively involved in planning.

Following is a cumulative summary of Health Communications programs to date:

Programs	1971-72	1972-73
Open circuit broadcasts	38	88
Closed circuit	15	41
Seminar/workshop	2	8
Special closed circuit	4	16
 Attendance	 1971-72	 1972-73
MD/DO	176	576
RN	242	394
LPN/technologists, students, pharmacists	499	1,209

DIVISION OF CONTINUING EDUCATION COURSES

July 1, 1972-June 30, 1973

DATE	TITLE	ATTENDANCE
Aug. 21-25	Audio-Tutorial Course in Basic Medical Mycology	10 (limited)
Sept. 22	Latest Technics and Developments in Nuclear Medicine	37
Sept. 28-29	Hematology Seminar	124
Sept. 15-16	American Cancer Society Exhibit	
Oct. 2-6	Second Annual Pulmonary Physiology Seminar	59
Oct. 11	Practical Approaches to the Diagnosis and Treatment of Diabetes Mellitus	216
Oct. 12-14	Pfizer Representatives Workshop	13 (limited)
Nov. 8-10	Immunology Workshop for Laboratory Personnel	100
Nov. 10	Diagnosis and Management of the Hypertensive Patient	114
Nov. 10-13	Workshop on Radiation Therapy	18 (limited)
Dec. 8-9	Current Concepts in the Treatment of Infectious Disease	87
Dec. 11-13	The Aging Person and His Needs	61
Jan. 8-9	Human Relations for Nursing Personnel in a Hospital Setting	44
Jan. 18-19	Nursing Care of the Patient with Pain	45
Feb. 19-25	Fourth Annual Family Practice Refresher Course	75
Feb. 28-Mar.1	Workshop on Teaching the Diabetic Patient	59
Mar. 12	Medical Electrical Seminar	17
Apr. 12-14	Seventh Annual Ophthalmology Residents Conference	47
Apr. 15-17	Fourth Annual Symposium on Gynecological Cancer	60
May 12	Cytology Seminar No.9—Carcinoma of Cervix and Endometrium	75
June 1	Emergency Medical Services Seminar	300
June 21-22	Workshop for the Nurse in Occupational Health	50

SOUTH CAROLINA REGIONAL MEDICAL PROGRAM

The South Carolina Regional Medical Program (SCRMP) entered into the second operational year of its Triennium period with an award on September 1, 1972 of \$1,700,368 in direct costs and \$386,397 in indirect costs totaling \$2,086,765. This was an increase of \$745,353 over the award for FY July 1, 1971-June 30, 1972.

Spirits were buoyed by this opportunity to extend health services in the state.

At the time of the annual Regional Advisory Group (RAG) meeting that winter, there were 20 operational projects and nine approved but unfunded operational projects. In addition, there were 10 developmental component fund grant projects and 15 contract projects.

But the scope of the program was not to be realized. On February 1, 1973 a telegram from Washington was received instructing the office to phase out by June 30, 1973 all but 10 operational projects for which special approval for continuation was obtained by Application for Continuation in March, 1973.

Subsequently an amended grant award notice was received on May 14, which ended the 1972-1973 fiscal year on June 30, 1973 instead of August 31, 1973 and which authorized the continuation of the 10 projects until February 15, 1974. This award also provided funds for a skeletal type phase-out staff. The program staff was scheduled to be reduced from 38 to 8 by June 30, 1973, and the budget for the period of July 1, 1973 to February 15, 1974 was reduced to \$284,902 in direct costs, which was \$18,226 less than had been requested in March, 1973 as a phase-out plan budget.

Despite the many uncertainties that SCRMP has gone through in respect to changes in funding and reorganization—after a demand for staff reduction in April, 1971, a demand in April, 1972, calling for expansion of staff and a specific recruitment of certain designated and minority staff members, and then by order in February, 1973 to discharge all but a minimum of staff—those staff who have remained have continued to work forcefully and effectively. Projects have been staffed properly, reports

have been prepared and accounting of funds and property have been conducted carefully and fully.

In addition to the grant awards provided by SCRMP to assist in improving health care in South Carolina, the program staff also provided, by staff operational support aid through Program Staff Operating Funds, for certain special studies for two areas: a study of the need for trained surgeons and training programs in this geographic area. This was carried out in conjunction with the American College of Surgeons and Harvard University. A nutritional conference to organize the South Carolina Nutrition Committee was supported.

Six areas of consultative and technical support were regularly supplied by the staff for community support, in addition to cooperating with all Areawide CHP (b) Planning Boards and the State CHP (a) Agency. Comment and review of health-related projects under A-95 review were regularly furnished the Governor's Office of Grants Review.

On June 25, 1973, SCRMP was advised by telegram that a Congressional extension of all RMP activity to June 30, 1974 had been given, and that several restrictions previously imposed were now lifted, including the right to re-budget into personnel unexpended monies. This notification served to provide a last-minute reprieve from discharge of three of the staff. Although now considerably reduced, the staff maintains an active and viable posture.

Following is a cumulative summary of education activities and services rendered by the project directors and staff of the South Carolina Regional Medical Program and the Division of Continuing Education of the Medical University of South Carolina and its faculty consultants:

Educational Activities	1968-1970	1970-1971	1971-1972	1972-1973
Physicians	2,507	10,000	19,027	23,150
Nurses	11,721	18,000	30,328	35,118
LPNs	116	400	516	731
Other	10,309	15,000	21,286	23,933
Grand Total—Cumulative	82,937			

All Health Education and Recruitment Activities

Total number attending
conferences or counseled
(contacted at science fairs,
schools, youth groups,
workshops, health agencies,
hospitals)

133,044 300,000 450,000

DEVELOPMENT AND PUBLIC RELATIONS

An intensive program to increase private donations to the Medical University raised more than a quarter of a million dollars during the year. The major financial effort was made possible by the appointment of a director and expansion of the Office of Development.

The Medical University Fund was instituted and a national chairman appointed. Meetings were held in various cities around the state to encourage gifts from alumni and friends.

Programs begun by the new Office of Development included mailings to all alumni on a three-to-four-times a year basis to keep their attention on the needs of the Medical University.

Also developed was a "case statement" outlining the cause for soliciting unrestricted funds and listing the capital improvement priorities of the Medical University.

The office was involved in a number of fruitful discussions with individuals and foundations. Early in the year, The John T. Stevens Foundation established a major scholarship fund for students from Kershaw and Lancaster Counties, and a \$43,500 bequest was received from the estate of Paula H. Oberle of Myrtle Beach for research into Parkinson's Disease.

The Health Sciences Foundation received contributions from more than 500 patrons and the Fund balance achieved a high of \$797,496.46.

More than 300 news releases were prepared by the Office of Public Relations for general media distribution and national professional journals. The Medical University

family itself was kept thoroughly posted by in-house publications on a standing schedule. These included "The Chart", a weekly news organ of 2,500 circulation; a weekly "Calendar of Events" providing a day-by-day listing of special events on campus; a monthly employees magazine, "Newscope", and a quarterly publication, "The Review", circulated primarily for the faculty.

Numerous tours of the Medical University complex by groups from throughout the state were arranged and handled by this office. The year set a record for tour groups.

The Public Relations office also continued to assist the Women's Auxiliary of the Charleston County Medical Society in its annual Health Careers Day program and extended full cooperation to the numerous women's groups on campus.

The appointment of a new director followed by a highly successful series of spring activities gave promise of a heightened role to be played in the progress of the Medical University by the Amalgamated Alumni Association. This year's college of Medicine Alumni Outstanding Faculty Award was presented to Dr. Vince Moseley, who currently serves as project coordinator of the South Carolina Regional Medical Program and director of the Medical University's Division of Continuing Education. Dr. Moseley was honored at a luncheon attended by approximately 150 alumni during the State Medical Association meeting in Myrtle Beach. The Office of Alumni Affairs extended its service to alumni by offering Continuing Education trips. The first, arranged for the College of Medicine, will be made to Bermuda by 127 alumni.

Dr. Leon Banov, a pioneer in community health, was honored posthumously as a Distinguished Alumnus by the Medical University Alumni Association during Founders' Day Weekend. Also honored at the Founders' Day banquet were Dr. J. C. Aull, retired professor of chemistry who taught at MUSC for more than 45 years, and Miss Ruth Chamberlin, former dean of the School of Nursing.

AUDIOVISUAL RESOURCES

Among the 4,800 service requests filled during the year, a number were worthy of special mention. Five scientific exhibits were produced by the Art and Photo Divisions for presentation at national meetings. One of these displays, which depicted pediatric abnormalities, received two awards of excellence. The Television Division was awarded "first place" at Biocommunications 73 for the production, "Drug Distribution and Clinical Services: The MUSC Approach".

Five color sound films were shown at national medical meetings and an innovative slide-tape program for the orientation of new MUSC employees was produced and is shown on a regular basis. A series of 17 psychiatric programmed learning units were completed and are being duplicated in videocartridge format for wide distribution. The Classroom Support Division provided extensive AV support for two international medical meetings and for a number of other important conferences held on and off campus. The MUSC Film Group, a popular student-sponsored project, received projection and other AV support from the DAVR.

Five medical students successfully completed a three credit elective entitled, "Biophotography for Physicians", last summer. Six more are currently enrolled. Upon passing this course, students may choose to take another one credit elective, "Special Project in Biocommunications". Both courses will be conducted twice each year.

Another three credit elective, "Introduction to Audiovisual Techniques", is being planned for both medical and dental students beginning with the spring quarter. This instruction is intended to prepare health sciences students to communicate more effectively through the use of well-planned audiovisual and instructional material. Two faculty development workshops were conducted in the design and development of self-instructional programs.

The department has had as one of its responsibilities the development of a student learning center. A variety of audiovisual devices were installed in study carrels for

students to utilize with self-instructional materials. Thirteen carrels were equipped with film loop projectors, synchronous slide-tape devices and videocassette players. Several self-instructional programs were produced for the center, and a number of films and videotapes were procured from outside sources.

In keeping with a trend at health institutions throughout the country, the responsibility for the center was transferred to the MUSC Library. The library received a federal grant to improve and expand this facility to include at least 30 carrels each with a complete AV package. A director and a media librarian, members of the library staff, coordinated closely with DAVR personnel who provided AV and TV equipment maintenance as well as production and consultation services as required. The center, which is located on the third floor of the library, will be responsible for the acquisition, cataloging and distribution of validated non-book materials for both on and off campus utilization.

STUDENT-EMPLOYEE HEALTH SERVICES

The Occupational Health Program has been extended to include preplacement physical examination of all new employees, and the granting of sick leave to employees absent from work for over two weeks because of illness.

In addition, Health Services are now staffed twenty-four hours daily. Increased activities and responsibilities required the addition of four full-time nurses and a part-time relief nurse.

There was a total of 14,227 visits to Health Services, 6,556 for students, 7,640 for employees and 31 for visitors.

During the past year, discussions were held between Health Services and the University Administration regarding the practicability of establishing an infirmary for students. It was concluded that the most efficient method of providing in-patient care at this time was by admission to the University Hospital. Assurances were made by the Hospital Director that bed space would be made available for students when required.

PHYSICAL PLANT

The Physical Plant Division was involved in a full spectrum of construction activities.

Soon after the start of the fiscal year, occupancy of the new Parking Garage was effected in August, 1972. This facility provided 410 new parking spaces to help alleviate the critical shortage in the medical complex, as well as space on two floors for Physical Plant Offices.

Work was begun on the completion of shelled-in space in the Basic Science-Dental Medicine Building for additional laboratory, classroom and office area for academic programs. The Rehabilitation Medicine Diagnostic and Treatment Center, an important addition to the Hospital, progressed to near completion, with a projected occupancy date of Fall, 1973.

Several major projects were begun to improve the efficiency of the Hospital's physical plant. In accordance with recommendations of electrical engineers, two 500 KVA transformers were replaced with 1500 KVA transformers and a new switch gear was installed to accommodate the increased power needs of the Hospital and two new 500 KW generators were purchased to increase the size of the emergency generation equipment. In order to meet hospital accreditation requirements, installation was begun on a 500 gpm well to provide an emergency water source.

Other major construction projects included renovation of several of the Quadrangle Buildings for offices and laboratories, renovation of Baruch Auditorium and the replacement of chiller units to serve the Quadrangle Buildings.

In addition to the administration of construction projects, the Physical Plant Division was instrumental in the planning and design of such major projects as the Clinical Science Building, the Institute for Human Development and the Business Service Building.

A program of routine and preventive maintenance was also carried out by the Physical Plant staff, in addition to minor construction and alteration projects amounting to \$634,648.

Through the efforts of a safety coordinator, special emphasis was placed upon the importance of fire and accident prevention by the use of training programs, hospital fire drills, and other teaching aids, as well as through the special treatment of hazardous materials and equipment.

FISCAL AFFAIRS

The annual State-appropriated budget for the Medical University for 1972-73 showed an increase of 29 percent over the previous fiscal year, a funding level indicative of the marked growth in educational, research and patient service activities. Payrolls processed during the fiscal year amounted to \$27,276,777, while other costs paid amounted to \$27,983,538.

During the year two independent audits were performed on the accounting records of the Medical University, both reflecting unconditional approval of the institution's financial statements. A second cost allocation study was conducted making use of refined formats, techniques and procedures, including greater computer application. It is expected that this cost allocation study will provide administrative officials with information on current educational costs that will be even more valuable than that gleaned from the first study.

An increased indirect cost rate of 65 percent for all Federal grants and contracts was successfully negotiated with the Federal Government.

Achievements within the Accounting Division included the implementation of payroll deductions for employee health insurance, the initiation of a system for inter-departmental transfer of funds between State agencies, and the development of management information system revenue reports.

During the year the Purchasing Department processed a total of 23,992 purchase orders for all divisions of the University. Construction was begun on a chemical storage warehouse outside the Basic Science-Dental Medicine Building. Flammable and explosive chemicals will be

stored in this warehouse and requisitioned to reduce any fire and explosion hazard.

The Motor Pool was expanded to an inventory of 15 passenger cars, 12 trucks, 12 buses and vans and 1 fork lift. The facility has developed the capability for handling most repairs and painting needed for vehicle maintenance, thereby reducing the cost of the operation.

Mail Services handled approximately 50,000 pieces of incoming mail, 40,000 pieces of out-going mail and 27,000 pieces of campus mail per week, while providing twice-daily pickups and deliveries to the 19 buildings which compose the campus area.

During the year, the Microfilming Section was transferred from the Internal Auditing Division to the Business Operations Division. With the updating of existing equipment, the Microfilming Section has developed the capacity of processing an average of 75,000 images per month and has provided substantial savings over the amounts charged by commercial firms.

The Student Aid Office processed and disbursed 964 loans and scholarships valued in excess of \$662,000, which was an increase of approximately 50 percent over the previous year for number of awards processed and an increase of \$112,000 in funds awarded.

The Internal Auditing Division participated during the year in the auditing of payroll and accounts payable records, credit union records, petty cash, change and check-cashing funds, and cash collections. This office also aided in the development of laboratory cost reports, a space utilization report for the institution, a gasoline management system for the Motor Pool and in accounts receivable and other procedures for the Hospital.

The Computer Center was successful in improving the quantity and quality of its processing through the acquisition of new machines and personnel for the Data Entry and Programming Sections and through major expansion of the core equipment. Several new programs were initiated during the year. These included a system to provide pharmacists in the Hospital with computer search and retrieval of abstracts on drugs, teleprocessing and

telecommunication capabilities, a data base management system, a student information system, and several new billing systems for various components of the University.

The Computer Center performed data processing services for the College of Charleston on a regular basis, as well as occasional services for the Marine Resources Division, The Citadel and Grice Laboratories. The University of South Carolina has adapted several of the Medical University's computer systems for its own use. At peak times the 360/40 computer unit was in operation more than 600 hours per month. Steps have been taken to reduce this high usage time, perhaps through the acquisition of a larger central unit.

It is felt that the centralization of business and fiscal activities in the planned Business Services Building will contribute greatly to the progress in efficiency which is being made.

STATEMENT OF CURRENT FUNDS REVENUES, EXPENDITURES, AND OTHER CHANGES

FOR THE YEARS ENDED JUNE 30, 1973 and 1972

	Unrestricted	1973 Restricted	Total	1972 Total
REVENUES:				
Educational and general:				
State appropriations:				
Academic operations	\$14,802,140		\$14,802,140	\$10,756,737
Academic fringe benefits	1,751,770		1,751,770	1,289,146
Hospital operations	6,856,570		6,856,570	5,670,909
Hospital fringe benefits	1,380,414		1,380,414	833,579
Net patient charges:				
Hospital	12,434,649		12,434,649	10,100,072
Academic clinics	162,187		162,187	92,164
Federal grants and contracts	926,735	\$ 8,202,358	9,129,093	6,951,235
Non-federal gifts, grants, and contracts	55,929	455,363	511,292	400,354
Laboratories	1,537,661		1,537,661	1,354,839
Student fees	419,866		419,866	308,487
Miscellaneous fees, sales and services	931,800		931,800	594,713
Other	101,471	87,588	189,059	167,397
Total educational and general	41,361,192	8,745,309	50,106,501	38,619,602
Auxiliary enterprises	635,854		635,854	691,549
Total revenues	41,994,846	8,745,309	50,740,155	39,111,151
EXPENDITURES AND MANDATORY TRANSFERS:				
Educational and general:				
Instruction and departmental research:				
College of Medicine	7,780,920	16,836	7,797,756	5,832,871
College of Dental Medicine	2,293,667		2,293,667	1,738,776
College of Nursing	630,682		630,682	575,491
College of Pharmacy	378,428		378,428	360,944
College of Allied Health Sciences	493,711		493,711	316,512
College of Graduate Studies	240,400		240,400	170,083
Psychiatric Training Program	154,961		154,961	99,206
Total instruction and departmental research	11,982,769	16,836	11,949,605	9,094,355
Supporting services for instruction and research departments	846,817		846,817	588,467
Hospital patient services including outpatient clinics			16,840,917	13,911,513
Sponsored research and other sponsored programs:				
Federal:				
Public service	2,968	4,403,462	4,406,128	2,936,479
Research	6,785	1,392,078	1,398,863	1,316,126
Basic improvements	14,559	1,307,252	1,321,811	1,346,700
Training	332,545	999,500	1,332,045	518,265
Other		660	660	3,501
Non-federal research and training	11,027	375,113	386,140	266,708
Total sponsored research and other sponsored programs	367,582	8,478,055	8,845,637	6,382,779
Laboratories	1,378,615		1,378,615	1,191,920
Clinics (dental, etc.)	179,217		179,217	155,299
Library	394,320	317	394,637	389,159
General administration and institutional expenses	\$ 4,082,242	\$ 89,491	\$ 4,171,733	\$ 3,305,655
Operation and maintenance of physical plant	4,701,218		4,701,218	3,425,436
Student aid:				
Federal		128,360	128,360	121,012
Non-federal	14,244	32,250	46,494	68,888
Total student aid	14,244	160,610	174,854	199,900
Total educational and general expenditures	40,737,941	8,745,309	49,483,250	38,644,483
Mandatory transfer for principal payment	24,000		24,000	23,000
Total educational and general	40,761,941	8,745,309	49,507,250	38,667,483
Auxiliary enterprises:				
Expenditures	477,141		477,141	465,012
Mandatory transfer for interest payment	19,074		19,074	16,219
Total auxiliary enterprises	496,215		496,215	481,231
Total expenditures and mandatory transfers	41,258,156	8,745,309	50,003,465	39,149,014
OTHER TRANSFERS AND ADDITIONS (DEDUCTIONS):				
Allocation of current unrestricted funds to plant funds	(1,052,567)		(1,052,567)	(305,604)
Transfer due to termination of restrictions	1,376	(1,376)		
Transfer for restricted grant expenditures from unexpended plant funds		(39,500)	(39,500)	
Refunds to grantors		(3,348)	(3,348)	(7,516)
Transfer from loan funds				475
Adjustment for prior year indirect cost settlement				(36,031)
Excess of additions to restricted current funds over transfer to revenues and recovery of indirect costs		434,217	434,217	117,225
Other transfers and additions (deductions)—Net	(1,051,291)	389,993	(661,298)	(231,451)
NET INCREASE (DECREASE) IN FUND BALANCES	\$ (314,601)	\$ 389,993	\$ 75,392	\$ (269,314)

MEDICAL UNIVERSITY PUBLICATIONS

Faculty, Student and Auxiliary Publications:
Chart, Newscope, Review, Phi Delta Chi, The Mouthpiece,
Panoptic, Stethoscoop, Distaff
Cost Allocation Study
National Spinal Cord Injury Registry
South Carolina Health Education System
Campus Telephone Directory
Student Information Bulletin
Self-Instructional Nursing Book
Respiratory Training Program
Pharmacy Formulary
Pediatric Manual
Medicine Electives
Library Catalogue
General Stores Catalogue
Family Practice Diagnostic Code Book
Medical University Alumni Bulletin
Oxygen Transport to Tissue Abstract Book
Preclinical Operative Dentistry Manual
Auscultation Review
X-Ray Manual
EKG Manual
Human Behavior
Purchasing Manual
Security Manual
Surgery Annual Report
Sickle Cell Booklet
Employee Handbook
Anatomy Laboratory Manual
Lead Poisoning Pamphlet
Operating Budget
International Eye Symposium Booklet
College Student Handbooks

